

Human IGFBP6 / IBP-6 Protein (His Tag)

Catalog Number: 13026-H08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

IBP6

Protein Construction:

A DNA sequence encoding the human IGFBP6 (P24592) (Met 1-Gly 240) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 96 % as determined by SDS-PAGE

Bio-Activity

1. Measured by its ability to bind human IGF1 (Cat:10598-H24E) in functional ELISA.
2. Measured by its ability to bind human IGF2 (Cat:13032-H24E) in functional ELISA.
3. Measured by its ability to inhibit the biological activity of IGF1 or IGFII on MCF7 human breast adenocarcinoma cells (Karey, K.P. et al. (1988) Cancer Research 48:4083.). The ED50 for this effect is typically 1-5 µg/mL in the presence of 14 ng/mL human IGFII.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Arg 28

Molecular Mass:

The recombinant human IGFBP6 consists of 224 amino acids and has a predicted molecular mass of 23.9 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhIGFBP6 is approximately 36 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

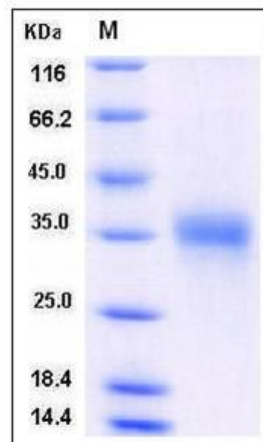
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Insulin-like growth factor-binding protein 6, also known as IGF-binding protein 6, IGFBP-6 and IBP-6, is a secreted protein which contains one IGFBP N-terminal domain and one thyroglobulin type-1 domain. The insulin-like growth factor (IGF) axis is a complex system composed of two mitogenic ligands, IGF-I and IGF-II, two receptors, IGF-IR and IGF-IIR, and six binding proteins, IGFBP1, IGFBP2, IGFBP3, IGFBP4, IGFBP5, IGFBP6. IGF-binding proteins (IGFBPs) prolong the half-life of the IGFs and have been shown to either inhibit or stimulate the growth promoting effects of the IGFs on cell culture. They alter the interaction of IGFs with their cell surface receptors. The IGFBPs exert their actions through their regulation of IGF bioavailability for IGF receptors. Increased IGFBP6 / IBP6 expression in oral tumors could be regarded as a potential predictive marker of tumor sensitivity and could be used for prognostic purposes, since a significant correlation could be observed between increased induction of apoptotic cell death and elevated levels of IGFBP6 / IBP6 in these tumors.

References

1. Saito, T. et al., 2003, Zoolog Sci. 20 (4): 441-7.
2. Kamangar, B.B. et al., 2006, Endocrinology. 147 (5): 2399-410.
3. Shynlova, O. et al., 2007, Biol Reprod. 76 (4): 571-8.
4. Zhang, L. et al., 2007, Dig Dis Sci. 52 (1): 248-53.
5. Cacalano, N.A. et al., 2008, Apoptosis. 13 (12): 1439-49.

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